

REMARKS

Claim 1 has been amended. Claims 29-30 have been added. Thus, Claims 15-30 are pending in the present application.

Claim rejections under 35 USC 112:

The Examiner objected to claim 1 as being indefinite. Applicants amended claim 1 substantially to more clearly define the present invention.

Claim rejection under 35 USC §102:

The Examiner rejected claim 1 under 35 USC §102(b) as being anticipated by Hoenninger. Applicant amended independent claim 1 to more clearly define the present invention. According to the present independent claim 1 the programming system for an automation system provides a user with a prioritized running system. To operate a production machine in an automation system, the operator can program a plurality of tasks. These tasks will be executed within the operating system on a predefined priority level. Figs. 1, 2, and 4 show these different levels. Typically, the tasks are executed on a relatively low priority level in a round robin fashion. That is, each task has assigned a predefined time slot during which its instructions are executed sequentially. Once a task is interrupted, this task will continue at the point it was interrupted when the system assigns it another time slot. According to the present invention a special instruction is provided for a user to handle time sensitive control functions. With this special instruction, the user does not have to worry about dealing with different priorities and, thus, does not have to assign different priorities to different tasks. The “wait for condition” instruction handles the current priority in a very specific way, not known in the prior art.

According to the limitations of independent claim 1, whenever a wait for condition instruction is executed, the system executes this instruction on a higher priority. If the condition is not met, the system immediately ends execution of that respective task and switches to one of the following tasks. However, the wait for condition instruction is still executed in parallel with the higher priority while the system resumes executing the other tasks in round robin fashion. Once the condition is met, the system interrupts the currently executed task and

switches back the previously interrupted task. Thus, the user can easily handle highly time critical functions without having to assign special higher priorities. While all tasks on this level are generally assigned the same priority level, the system can execute these special instructions with a higher priority level allowing to immediately react to time sensitive situations.

Hoenninger does neither disclose nor suggest such a method. On the contrary, Hoenninger merely discloses to assign each task with a different priority, thus allowing more important tasks to interrupt tasks with lower priority. However, this complicates the programming model for the user and requires assignment of different priority levels to each task. In many cases only a single condition requires a time sensitive handling and other parts of a task do not require a higher priority. Thus, Hoenninger is much less flexible than the system according to the present invention.

Dependent claims:

The dependent claims include all the limitations of the independent claims 1 and are thus patentable at least to the extent of independent claim 1. Applicants furthermore introduces new dependent claims 29-30 which further develop the method of independent claim 1 by allowing to switch back to normal priority within a task once the higher priority has been activated.

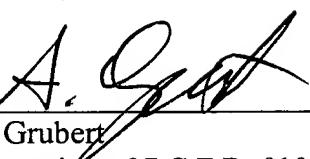
CONCLUSION

The application as defined in the pending claims is patentable under 35 U.S.C. §102 and §103 in view of the cited prior art. Therefore, applicants respectfully request withdrawal of the rejection and allowance of all pending claims.

Applicants do not believe that any other fees are due at this time; however, should any fees under 37 C.F.R. §§ 1.16 to 1.21 be required for any reason relating to this document, the Commissioner is authorized to deduct the fees from Deposit Account No. 02-0383, (*formerly Baker & Botts, L.L.P.*,) Order Number 071308.0211.

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